Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	31.682	38.923	31.629	-	31.629	29.781	30.756	31.337	31.964	Continuing	Continuing
043: *Technology Innovation Base*	-	8.949	6.685	-	-	-	0.000	0.000	0.000	0.000	Continuing	Continuing
138: *S&T Protection*	-	8.767	12.671	13.356	-	13.356	11.858	12.597	12.838	13.095	Continuing	Continuing
139: *Joint Acquisition Protection Exploitation Cell (JAPEC)*	-	9.080	14.306	13.135	-	13.135	12.976	13.110	13.341	13.608	Continuing	Continuing
158: *Program and Technology Protection*	-	4.886	5.261	5.138	-	5.138	4.947	5.049	5.158	5.261	Continuing	Continuing

Note

New Start (Y/N): No

A. Mission Description and Budget Item Justification

This program supports the Department's priorities to advance integrated deterrence, strengthen international cooperation with international Allies and partners, build sustainable and long-term technological advantage in critical technologies, and build a resilient Joint Force and Defense ecosystem.

This program supports the implementation of the 2023 National Defense S&T Strategy to develop and implement effective technology protection to support military innovation. Technology protection is vital to achieving an enduring advantage. While we must accept some degree of risk to catalyze innovation, we must also protect sensitive technologies and military programs from theft, diversion, and exploitation by our strategic competitors. We will build our technological edge using carefully targeted controls and by working closely with our Allies and partners to jointly and effectively protect our collective research, development, and innovation efforts, including warfighting concepts and capabilities during joint experimentation.

This Program Element provides funding to support efforts to maintain the Department of Defense's (DoD)'s technology advantage over strategic competitors in microelectronics, quantum computing, artificial intelligence, biotechnology, and other critical technology areas. Maturing and implementing the Office of the Under Secretary of Defense for Research and Engineering's (OUSD(R&E)) technology priorities requires a healthy and capable U.S. National Security Innovation Base (NSIB). The targeting of U.S. capabilities by our strategic competitors creates the potential to degrade core U.S. military technological advantages through unwanted technology transfer from the NSIB. This technology transfer includes exfiltration of unclassified technology, sensitive data, and of intellectual property, and could jeopardize DoD's ability to maintain the technology advantage required to support the lethality and survivability of the Joint Force.

DoD's plan to maintain technology advantage includes programs and plans to:

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*

(1) Make strategic technology investments to promote the development of new and innovative technologies. These investments will establish and maintain a robust academic and industrial base capable of creating breakthroughs in key areas of basic research, bringing products to market, and leveraging technologies within the U.S. innovation ecosystem or with likeminded Allies.

(2) Ensure the Department's strategic technology investments are protected against unwanted technology transfer by developing and maintaining the tools and techniques that enable the U.S. to engage in technology transfer at the time, place, and parties of our choosing.

(3) Combat strategic competitors' attempts to thwart the U.S. NSIB and implement unwanted technology transfer.

The Department will support these three efforts by developing the appropriate suite of analytic tools, a data acquisition strategy, and protection activities across the science and technology (S&T) enterprise and programs to address the threat over the long term. S&T protection focuses on ensuring the integrity of the research enterprise through development of policy and execution of due diligence on technology development efforts. Program Protection Planning includes protection of critical program information, critical components, and mission functions, and integrates high level security policies and practical expertise to specific research, development, and acquisition practices, systems engineering activities, secure cyber resilient engineering activities, software assurance activities and risk reduction activities. Through this initiative the Department is maturing system security engineering methodologies to protect controlled unclassified information, to include controlled technical information on contractor networks; improving mitigation of supply chain risk management risks; enhancing software assurance; integrating secure cyber resilient engineering into the engineering process; maturing processes to identify Critical Program Information integration as part of the Defense Exportability Features initiative; expanding software assurance capabilities provided by the Joint Federated Assurance Center (JFAC), which was established in Sec 937 of the National Defense Authorization Act (NDAA) for FY 2014; and improving program protection planning.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	32.812	38.923	38.100	-	38.100
Current President's Budget	31.682	38.923	31.629	-	31.629
Total Adjustments	-1.130	0.000	-6.471	-	-6.471
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.126	-			
• Program Adjustments	-0.004	-	-6.534	-	-6.534
• Economic Assumptions	-	-	0.063	-	0.063

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 043: *Technology Innovation Base*		
Congressional Add: *Securing American Science and Technology Program*	0.000	-
Congressional Add Subtotals for Project: 043	0.000	-
Congressional Add Totals for all Projects	0.000	-

Change Summary Explanation

Decrease of $6.215 million in FY 2025 is due to the transfer of Project Code 043 in PE 0605797D8Z / Maintaining Technology Advantage to Project Code 681 in PE 0603680D8Z / Defense-Wide Manufacturing Science and Technology Program to better align The Technology Industrial Innovation Base (TIIB) efforts within OUSD(R&E) in support of implementing the 2023 National Defense S&T Strategy and the 2022 National Defense Strategy.
A reduction of $0.319 million in FY 2025 was applied to meet DoD overall funding reductions, which were spread to mitigate impact.
Funding increase of $0.063 million in FY 2025 for Economic Assumptions.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / *Maintaining Technology Advantage*	Project (Number/Name) 043 / *Technology Innovation Base*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
043: *Technology Innovation Base*	-	8.949	6.685	-	-	-	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Technology Industrial Innovation Base (TIIB) effort develops near- and long-term strategies and employs mechanisms to retain the U.S. advantage in current and emerging modernization technology priorities by addressing the capabilities of the industrial innovation base to develop, test, manufacture, and sustain them. This project provides support to technology priority leaders in identifying industrial innovation base needs; characterizing and assessing priority technology investments, identifying and mitigating issues and risks impacting the industrial innovation base, and exploiting opportunities to advance technology development, testing, and manufacturing. One of TIIB's main objectives is to create balance between promotion of the industrial innovation base while protecting the technology from interference or exploitation by competitors. This balance will aid the Department's advancing critical and emergent technologies ahead of competitor nations and actors while sustaining a healthy, resilient, and globally competitive industrial innovation base. This portfolio of activity extends efforts initiated in response to FY 2019 National Defense Authorization Act (NDAA) Section 1793.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Technology Industrial Innovation Base	8.949	6.685	-
Description: This project uses a three-step approach: (1) Assess, (2) Protect/Promote; and (3) Monitor. In the first step, TIIB uses emerging technology assessments to translate technology needs to manufacturing and industrial innovation base requirements in order to identify industrial innovation base issues, risks, and opportunities. TIIB created an assessment methodology that incorporates four types of studies to provide a full overview of the technology from a manufacturing and industrial innovation base point of view. The results of the assessments are used to generate industrial-innovation-base inputs to technology roadmaps, develop an investment plan addressing the needs of the industrial innovation base, and create technology and industrial innovation base protection and promotion strategies (second step of the approach). TIIB leverages DoD and Federal Government tools and initiatives to implement the strategies. In the third step, TIIB uses data analytics to measure the success of mitigation and exploitation strategies, establish trends in the markets, and identify the need for additional assessments or changes in investments and strategies. TIIB applied these three steps to Advanced Battery Supply Chain Disruptions, Capabilities within the Directed Energy Industrial Base, DoD Battery Standardization for 2030, Directed Energy Early Supply Chain, and began an assessment of the Strength and Resilience of the U.S. Quantum Technology Supply Chain. Additionally, TIIB organized and hosted the Trusted AI and Autonomous Systems (TAIA) Defense Technology Review Conference, the inaugural Hypersonics Horizontal Protection Workshop, and the Hypersonics Government-Industry Engagement Event (HGIEE).			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 043 / *Technology Innovation Base*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Identify and address new, emerging manufacturing capabilities and technology base gaps that are critical to fielding modernization priorities and other U.S. technological advantage areas, including workforce, engineering and prototyping infrastructure and facilities. - Advance the emergent technologies and develop a healthy industrial innovation base. - Continue to manage technology innovation base assessments performed by other DoD and USG Agencies, Federally Funded Research and Development Centers (FFRDCs), University Affiliated Research Center (UARCs), or industry. - Continue to conduct deep dive assessments to identify and address national security innovation base risks, issues, and opportunities related to DoD to include but not limited to: - Tools, technologies or techniques associated with development, testing, or manufacturing - Financial health of key industrial partners and suppliers - Workforce need for scientists, engineers, technicians - Single source materials, critical pockets of expertise, impacts to environmental events, exploitation by foreign actors to secure or deter critical elements of the innovation base - Continue to create Technology/Innovation Base strategies for each technology priority area to focus on industrial base affordability, sustainability, and other areas in collaboration with OUSD(R&E) Principal Directors and other stakeholders, as required. - Continue to identify and address new, emerging manufacturing capabilities and technology base gaps that are critical to fielding modernization priorities and other U.S. technological advantage areas, including workforce, engineering and prototyping infrastructure and facilities. - Continue to assess and strategize development for the hypersonics industrial base. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease of $6.685 million between FY 2024 and FY 2025 is due to the transfer of P043 in PE 0605797D8Z / Maintaining Technology Advantage to P681 in PE 0603680D8Z / Defense-Wide Manufacturing Science and Technology Program to better align the TIIB efforts within OUSD(R&E) in support of implementing the 2023 National Defense S&T Strategy and the 2022 National Defense Strategy.			
Accomplishments/Planned Programs Subtotals	8.949	6.685	-

	FY 2023	FY 2024
Congressional Add: Securing American Science and Technology Program ***FY 2023 Accomplishments:*** N/A	0.000	-
Congressional Adds Subtotals	0.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 043 / *Technology Innovation Base*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / *Maintaining Technology Advantage*	Project (Number/Name) 138 / *S&T Protection*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
138: *S&T Protection*	-	8.767	12.671	13.356	-	13.356	11.858	12.597	12.838	13.095	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

As the Department develops advanced technologies, it must use a rigorous, repeatable methodology to protect technology advantage in addition to current Program Protection Planning policy. For example, the Department will establish and implement policy to protect critical technology in science and technology (S&T), encompassing the lifecycle of basic and applied research, advanced technology development, prototyping, and technology transition to programs. This includes driving consistency across risk-based security reviews for fundamental research and Small Businesses Innovation Research / Small Business Technology Transfer (SBIR/ STTR) programs. The production, updating, and use of Technology Area Protection Plans (TAPPs) generate consistent and balanced protection of critical technology, provide foundational guidance for communicating about the technology to particular audiences, and inform protection and controls integrated with technology promotion activities. The implementation of these policies and TAPPs have broad impacts across DoD and interagency-wide activities associated with critical technologies, including development of protection practices with; DoD research performers (e.g., the DoD and national laboratories, academia, small businesses, and the broader industrial innovation base); international agreements; counterintelligence and law enforcement priorities and activities; export controls; and foreign investment screening through the Committee on Foreign Investment in the United States (CFIUS).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Science and Technology (S&T) Protection	8.767	12.671	13.356
Description: This project supports efforts to maintain DoD's technology advantage by establishing activities to promote and ensure accountability for mitigating strategic competitor exploitation of technologies critical to national security objectives. This project will develop and oversee S&T policy and practices for informed horizontal protection of emerging and critical technology areas.			
FY 2024 Plans: - Update current TAPPs and develop new TAPPs for newly identified Critical Technology Areas. - Develop and institutionalize risk review and due diligence guidelines and efforts that are consistent across the DoD and mitigate foreign influence in S&T efforts. - Assess, improve, and continue the development of new data-driven models and capabilities that enable data-informed identification and implementation of courses of action that balance the promotion and protection of DoD technology advantage. - Continue to develop and implement proactive analytic tools supporting the biomanufacturing NSIB to identify strategic competitor programs and entities posing an increased risk of unwanted technology transfer, and mitigate those risks in support of the DoD Biomanufacturing Strategy.			
FY 2025 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 138 / *S&T Protection*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Institutionalize and update as needed DoD risk-based security review policies (e.g., fundamental research, SBIR/STTR) that are consistent across the DoD and mitigate foreign influence in S&T efforts. - Continue to update TAPPs to drive horizontal protection of Critical Technology Areas. - Implement, refine, and develop new data-driven models and capabilities that enable data-informed identification and implementation of courses of action that balance the promotion and protection of DoD technology advantage. - Implement, assess, and improve proactive analytic tools supporting the biomanufacturing NSIB, including a map of the domestic biomanufacturing ecosystem for identification and tracking of metrics to support future implementation, refinement, and protection of U.S. investments in domestic biomanufacturing capabilities in support of the DoD Biomanufacturing Strategy. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increase of $0.658 between FY 2024 and FY 2025 reflects the Department's need to continue to develop and implement proactive analytic tools supporting the protection of military capabilities that are being developed using emerging technologies, including biotechnology, quantum science, and advanced materials.			
Accomplishments/Planned Programs Subtotals	8.767	12.671	13.356

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense											Date: March 2024	
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605797D8Z / *Maintaining Technology Advantage*				Project (Number/Name) 139 / *Joint Acquisition Protection Exploitation Cell (JAPEC)*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
139: *Joint Acquisition Protection Exploitation Cell (JAPEC)*	-	9.080	14.306	13.135	-	13.135	12.976	13.110	13.341	13.608	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DoD established a joint analysis capability, the Joint Acquisition Program and Exploitation Cell (JAPEC), to produce analytics products in support of the technology protection mission, such as formal reviews of CFIUS cases; engage with acquisition, intelligence, counterintelligence, and law enforcement sources to determine consequences of, and appropriate preventative/mitigation actions against unwanted technology transfer; and assess controlled unclassified technical information losses. The JAPEC detects and characterizes past technology losses, conducts damage assessments of lost information, and provides insights with predictive value to support and promote activities. Together with supporting organizations, such as the other member agencies of CFIUS pursuant to 50 U.S.C. 4565, and the export control agencies, the JAPEC enables comprehensive, detailed assessments of U.S. military technological vulnerability, as well as inform the development and application of effective policies, countermeasures, and enforcement actions to preserve U.S. technical superiority in all warfighting domains. JAPEC engages with select Allies and partners in order to develop protection efforts across the extended supply chains resulting from the partnerships created by the global S&T community.

JAPEC and supporting organizations synchronize, integrate, coordinate and inform the DoD efforts to protect critical technologies from malign investment by strategic competitors and to combat malign activities. JAPEC conducts trend analysis of protection efforts for the Department's critical acquisition programs and technologies, incorporates findings into protection processes and activities, and analyzes losses, to determine consequences and appropriate courses of action, such as deterrence of our strategic competitors as well as promotion of the NSIB.

JAPEC also manages OUSD(R&E)'s responsibilities for CFIUS, including the assessments, reviews, and investigations of transactions on the CFIUS docket, as well as the identification of "non-notified" transactions that are not yet before CFIUS but which may raise national security concerns meriting formal review. This line of effort involves the initial screening of all CFIUS transactions (to determine OUSD(R&E) equities), coordination with subject matter experts who provide vulnerability and consequence information to support the assessment of risks to national security presented by each transaction affecting OUSD(R&E) mission space, and full market analytics to carry out the President's September 2022 Executive Order for CFIUS to consider risks presented by aggregate industry investment trends. This effort also supports the Department of the Treasury, which chairs CFIUS, in its outreach to Allies and partners who are standing up similar investment screening capabilities, providing advice and technical assistance in those foreign-to-foreign investments which may indirectly affect U.S. national security.

JAPEC is also the focal point for related efforts, such as OUSD(R&E)'s screening of domestic mergers and acquisitions, which might impair the health of the Defense Industrial Base, and patent security reviews pursuant to the Invention Secrecy Act, to assess whether secrecy orders are warranted for patents pertaining to critical technology such as quantum computing. JAPEC also leads OUSD(R&E)'s export control activities where JAPEC provides technical advice and recommendations to the Defense Technology Security Administration regarding applications for licenses to export.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 139 / *Joint Acquisition Protection Exploitation Cell (JAPEC)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Joint Acquisition Protection Exploitation Cell (JAPEC)	9.080	14.306	13.135
Description: Integrate controlled unclassified information, to include Controlled Technical Information (CTI), protection efforts across the DoD to proactively mitigate losses resulting from unwanted technology transfer and to exploit opportunities to combat strategic competitors that may threaten U.S. military advantage. ***FY 2024 Plans:*** - Continue development of protection measures and conduct performance measurements of their effectiveness. - Assess implemented exploitation opportunities to combat strategic competitors that threatened U.S. military advantage and continue the development of new exploitation opportunities. - Expand partnering and development of international (bilateral/multilateral) protection practices with select Allies into multiple DoD Critical Technology Areas (CTAs). - Assess the operationalization of critical program and technology enhanced protections to inform the implementation of further enhanced protections. - Continue integration with national counterintelligence and law enforcement efforts to combat unwanted strategic competitor activities. - Develop consistent technology protection guidance and actions across the DoD enterprise by integrating, synchronizing, and deconflicting current and future technology protection guidance and actions applied to technologies supporting DoD military capability. - Assess and improve the implementation of protection strategies involving the Committee on Foreign Investment in the United States (CFIUS), export controls, intellectual property, and mergers and acquisitions reviews related to Critical Technology Areas. - Monitor the NSIB and the performance of promote and protect activities. ***FY 2025 Plans:*** - Develop consistent technology protection guidance and actions across the DoD enterprise by integrating, synchronizing, and deconflicting current and future technology protection guidance and actions applied to technologies supporting DoD military capability. - Assess and improve the implementation of CTA protection lines of effort involving transactions subject to CFIUS, export control license applications, intellectual property, and domestic mergers and acquisitions , such as through new analytic products to illuminate trends among non-notified transactions that may merit the attention of CFIUS. - Support the NSC and DoD stakeholders in national and international policy making and the implementation of new policies. - Execute new investment risk authorities as required by statute or executive order, to include drafting implementing regulations.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 139 / *Joint Acquisition Protection Exploitation Cell (JAPEC)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Work with DoD and interagency partners to scope export controls to protect emerging and foundational technology and to implement National Security Advisor guidance. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease of $1.197 million between FY 2024 and FY 2025 reflects a realignment of funds for higher priority DoD missions and $0.063 million in FY 2025 for Economic Assumptions.			
Accomplishments/Planned Programs Subtotals	9.080	14.306	13.135

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / *Maintaining Technology Advantage*	Project (Number/Name) 158 / *Program and Technology Protection*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
158: *Program and Technology Protection*	-	4.886	5.261	5.138	-	5.138	4.947	5.049	5.158	5.261	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Department of Defense (DoD) must address cybersecurity and supply chain risks to DoD networks, weapons systems, and information stored and processed on both the DoD and the Defense Industrial Base (DIB) unclassified contractor information networks that support DoD programs. Advanced persistent threats (APTs) that can evade commercially available security tools and defeat generic security best practices, drives the need for diligent program protection planning and execution. This project supports implementation of DoDI 5000.83, Technology and Program Protection to Maintain Technological Advantage. Activities carried out for Program Protection Planning include protection of controlled technical information, critical program information, critical components and critical mission functions; and integration of system security policies and acquisition and S&T practices, secure cyber resilient engineering activities, and system security risk reduction activities. This initiative is maturing system security engineering methodologies to protect controlled unclassified information, to include controlled technical information on contractor information networks; improve software and hardware assurance mitigations and management of information communication technology (ICT) supply chain risk management risks, improve integration of cybersecurity into the engineering processes through secure cyber resilient engineering methods, improve software assurance and hardware assurance practices, mature processes to identify and protect Critical Program Information, mature processes to integrate defense exportability features to allow for expediated transfer of U.S. defense systems, and improve program protection planning. Activities carried out, support DoD Instruction 5200.44 Trusted Systems and Networks with the use of proven mitigation techniques and tools, the ongoing refinement of ICT risk management processes, and creation of needed technology; implementation of DoD Instruction 5200.39 Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E) and DoD Directive 5200.47 Anti Tamper to identify and protect Critical Program Information; and implementation of DoD Instruction 8582.01 Security of Unclassified DoD Information on Non-DoD Information Systems for Safeguarding Controlled Unclassified Information on contractor owned networks.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Program and Technology Protection	4.886	5.261	5.138
Description: This project provides system security engineering and secure cyber resilient engineering policy, guidance and technical implementation assessments to inform and reduce risks in sharing and storing Controlled Technical Information and data, improve mitigation of ICT supply chain risk management risks, improve integration of cybersecurity into the engineering processes, improvements in defense exportability and anti-tamper practices, improve processes and tools to identify Critical Program Information and improve program protection planning. Activities carried out support implementation of DoD instruction 5000.83, Technology and Program Protection to Maintain Technological Advantage; DoD Instruction 5200.44 Trusted Systems and Networks; DoD Instruction 5200.39 Critical Program Information (CPI) Identification and Protection Within RDT&E and DoD Directive 5200.47E Anti Tamper to identify and protect Critical Program Information; DoD Instruction 8582.01 Security of Unclassified DoD Information on Non-DoD Information Systems.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 158 / *Program and Technology Protection*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Continue to: Provide support to Independent Technical Review Assessment and Cyber Vulnerability Review Assessment teams in conduct of broad program protection planning activities to assess: - Conduct of criticality analyses to determine supply chain risk management protections. - Conduct of Critical Program Information analysis to determine anti-tamper protections. - Conduct of secure cyber resilient engineering activities to determine technical cyber risks. Advance the state of the practice of systems security engineering and secure cyber resilient engineering: - Continue secure software assurance activities to support expansion of capabilities provided by the Joint Federated Assurance Center (JFAC) and implementation of EO 14028, Improving the Nation's Cybersecurity. - Continue development of methodologies to identify and mitigate system security risk, to include cybersecurity and supply chain risk. - Continue to develop courseware, refine guidance, provide training, and outreach with government and industry. - Continue to refine guidance, tools and mitigation approaches to mitigate capability, system and technology risks. Safeguard Controlled Unclassified Information, including Controlled Technical Information: - Continue to refine implementation and guidance of marking and dissemination of distribution of technical information. - continue to refine safeguarding information protection methods for contractor unclassified information networks. Safeguard Critical Program Information: - Continue to refine implementation, guidance and tools to identify Critical Program Information. - Continue to refine Anti-Tamper protections methods to safeguard Critical Program Information. Defense exportability features integration: - Continue to mature processes, methods and guidance for defense exportability features integration.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 158 / *Program and Technology Protection*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Pilot improvements to defense exportability protection methods to provide expediated transfer to Allies and partners of U.S. Defense systems. ***FY 2025 Plans:*** Provide support to 3 USD(R&E) Independent Technical Review Assessments for conduct of program protection planning and cyber vulnerability activities to assess: - Conduct of criticality analyses and supply chain risk management protections. - Conduct of Critical Program Information analysis and anti-tamper protections. - Conduct of secure cyber resilient engineering activities and technical cyber risks. Advance the state of the practice of systems security engineering and secure cyber resilient engineering: - Continue implementation activities to expand software assurance capabilities provided by the JFAC software assurance military centers to implement secure software supply chain requirements in EO 14028, Improving the Nation's Cybersecurity. - Continue development of system security engineering methodologies to align with the updated DoDI 5200.44; methods include use of Defense Microelectronics Activity when products and services are not available, and application of exclusion authorities to identify and mitigate system security risk, to include cybersecurity and ICT supply chain risk, methodologies include software assurance, hardware assurance, system assurance. - Continue to develop secure cyber resilient engineering courseware, refine guidance, refine standards, supporting program protection and conduct outreach with government, industry, and allies and partners. - Deliver recommendation to NATO on approach to update NATO Standard on Engineering for System Assurance in Programmes to align with US adoption of System Assurance. - Continue to refine secure cyber resilient engineering guidance, tools and mitigation approaches for capability, system and technology risks. Safeguard Controlled Unclassified Information, including Controlled Technical Information: - Develop guidance to implement NIST SP 800-172 for controlled technical information. - Refine guidance for safeguarding information protection methods for contractor unclassified information networks to based on implementation lessons learned. Safeguard Critical Program Information: - Deliver Critical Program Information Horizontal Protection Guidance to refine anti tamper methods and implementation in support of the 2022 National Defense Strategy for advancing regional goals with Allies and Partners - Continue to oversee Anti Tamper Executive Agent -			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605797D8Z / *Maintaining Technology Advantage*	**Project (Number/Name)** 158 / *Program and Technology Protection*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Defense exportability integration: - Continue to refine improvements to defense exportability protection methods to allow expedited transfer to allies and partners of U.S. Defense systems. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease of $0.133 million between FY 2024 and FY 2025 reflects fluctuation in USD(R&E) Independent Technical Review Assessments for Program Protection from 4 assessment numbers to 3 assessments and scope of duties, and maintenance of FY 2025 execution of assessment tasks and support of new emerging technology assignments.			
Accomplishments/Planned Programs Subtotals	4.886	5.261	5.138

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A